INTERNAL AUDIT
SUBSTANTIVE TESTING
FLEET MANAGEMENT

December 3, 2001

Roanoke City Council Audit Committee
Roanoke, Virginia

We have completed our audit of fleet availability for the City of Roanoke Fleet. Our audit was performed in accordance with generally accepted government auditing standards.

BACKGROUND

Fleet Management maintains approximately 750 vehicles and pieces of equipment for all City departments that use vehicles in day-to-day operations. The fleet is a diverse mix of passenger cars, light trucks, heavy trucks and equipment. Last year, approximately 8,500 repair orders were opened on all vehicles combined.

Fleet Management has 38 full-time equivalent positions consisting of mechanic and mechanic support positions. Operations are conducted in two shifts, 6:30 a.m.-3 p.m. and 2:30-11 p.m. Fleet's budget for fiscal year 2002 is $5,996,486, representing an 18.32% increase over the prior fiscal year budget. Over $500,000 of the increase is to fund depreciation expense associated with a large increase in replacement vehicles purchased and an adjustment in useful lives of some City vehicles.

The stated goal of Fleet Management is to meet City operational equipment needs by providing safe, efficient and reliable motorized vehicular equipment in the most cost effective manner.

PURPOSE

The purpose of this audit was to evaluate fleet availability as well as overall efficiency and effectiveness of Fleet Management operations. Included in our evaluation of the fleet was a review of the size and use of the Police Department's reserve fleet.

SCOPE

Our audit included a review of processes in place as of August 31, 2001. Test work was limited to transactions occurring during the period of January 1, 2001 to August 31, 2001.

METHODOLOGY

We gained an understanding of Fleet Management processes and procedures through reviews of existing documentation and interviews with Fleet employees and management. We tested accuracy of information by selecting a sample of transactions on an interval basis. We compared information at different points of entry into the system and evaluated consistency.

We evaluated a sample of repair orders and performed a comparison of labor hours charged at Fleet versus industry standard charges found in the Standard Labor Guide. In doing this, we compared consistency within Fleet for similar repairs. Additionally, we evaluated the effectiveness of Fleet's preventative maintenance program.

RESULTS

Finding 01

Fleet Management is not monitoring fleet availability and availability could not be calculated during the audit due to inadequate and unreliable data. Poor controls over dates and times entered for "open", "finish" and "close" fields for repair orders caused the data to be inconsistent. We also noted that standard industry practice is to track availability and that a 95% availability rate is common. The City's Fleet Management department has an established goal of 90% availability that the department set based on the age and condition of the fleet. The Fleet Manager believes that the fleet has been sufficiently upgraded to allow the City to reestablish a 95% availability standard.

Recommendation 01

The Fleet Manager should establish standards for "open", "finish", and "close" times and communicate these to the mechanics and other staff. The Fleet Manager should monitor fleet availability by using a Vehicle Downtime report (EIC 3880) available on MCMS. This reports productivity by vehicle and should allow management to identify problem vehicles needing replacement that are not meeting user needs. The Open Repair Order Summary report should also be monitored to evaluate the percentage of the fleet under repair at any given time.

Management's Response 01

Fleet Management will develop policies and procedures on entry of open, start, finish and close times for repair activities that conform to the department's reporting needs and ensure that times are entered consistently. The policy will include provisions for MCMS downtime, outsourced work, and other exceptions. Fleet Management currently monitors the Vehicle Downtime report (EIC 3880) and uses this report as part of an evaluation process for fleet replacement recommendations. Fleet also monitors the Open Repair Order Summary report (EIC 2990) for status and scheduling of fleet in shop. [Target date: 12/15/01]

Fleet will work closely with the Department of Technology to prepare the system for the MCMS number conversion. [Target date: 12/01/01]

Once the Department of Technology has completed preparing the system for the conversion, Fleet will begin its conversion. The system will allow only 15-20 units to be converted per day. Fleet will do this conversion department by department. Once the process is complete, Fleet will then be able to track fleet availability. [Target date: 03/01/02]

Finding 02

In some cases, dates and times entered into MCMS do not reflect actual times events occurred. We reviewed 63 repair orders selected using interval sampling.

- In 13, labor was started before the repair order was opened.
- In 63, finish times entered were not correct.
- In 46, repair orders were not closed in a timely manner. The average number of days between when the repair was finished and when the repair order was closed was approximately nine.
- 12 were Quick Ticket transactions. 11/12 were not closed in a timely manner.

Recommendation 02

The Fleet Manager should establish standards for “open”, “finish” and “close” times and communicate these to the mechanics and other staff. Each time should be meaningful in relation to measuring vehicle availability or mechanic performance. The Fleet Manager should develop procedures for coping with scheduled MCMS downtime, outsourced work, and other scenarios to ensure that “open”, “finish”, and “close” times are consistent for the purpose of reporting and analysis.

Management’s Response 02

Fleet Management will develop policies and procedures on the entry of open, start, finish and close times for repair activities that conform to the department’s reporting needs and ensure that times are entered consistently. The policy will include provisions for MCMS downtime, outsourced work, and other exceptions. [Target date: 12/15/01]

Finding 03

Labor time and costs associated with some repairs are not reasonable when compared to standard times and costs.

- In 3 of 10 repair orders tested, actual labor time charged was more than double the standard time.

- Labor time required to perform state inspections varies widely. Labor required was as low as .17 hours and as high as 2.13 hours for the same year, make and model vehicle.

- Charges for oil changes are significantly higher at Fleet than private industry. The average cost of an oil change in a sample of ten was $34.90 at Fleet. Magic City Ford performs the service for $23.95

- Labor charges for installation of one tire were noted to be as high as $127.17.

- Labor charges for installation of one bulb were noted to be as high as $52.82.

- Labor charges for tire patching were noted to be as high as $69.68.

Recommendation 03

Fleet Management should establish standard charges for certain standard services such as preventive maintenance, state inspections, and tire patches. The MCMS system allows such standards to be set based on vehicle groups (year, make, model). Fleet Management should establish procedures requiring estimates for other services be prepared on a job-by-job basis, based on the shop foreman's experience and available standards. Such estimates should be entered into the MCMS system and report EIC3898, "estimated vs. actual repair costs" should be used to monitor repairs against the estimates. Repairs that cost significantly more or less than the estimate should be reviewed by a supervisor for reasonableness.

Management's Response 03

Fleet Management will implement the use of work standards (standard times) for standard repair activities. Standard repair activities will be identified using the rule that 20% of the work activities take 80% of the time to complete. Accordingly, the Fleet repair activities that take 80% of the time to complete will be assigned a standard time. Each standard will be based on national industry standards and will become the estimated time to complete the repair activity. Management will evaluate variances between actual time required to complete the repair activity and the standard time and document the reason for the variance. This will be the first step toward the development of standard costs for standard jobs. [Target date: 04/01/02]

Finding 04

Preventative Maintenance is not being performed in accordance with Fleet Management's recommended schedule.

- In 4 of 20 vehicles tested (20%), PM services were overdue by 30 days or more.

- In a sample of 10 Police Patrol cars, the average interval between oil changes was 5,932 miles, with some as high as 10,784 miles between oil changes. It was determined that the Police Fleet coordinator uses his own oil change schedule.

Fleet Management provides departments with monthly reports showing vehicles due for preventive maintenance. Departments in some cases are not prompt in scheduling their vehicles for services. The mechanics in Fleet do not perform preventive maintenance on vehicles unless the user has requested it, even if the vehicle is shopped for another reason and the MCMS system shows the vehicle is due for preventive maintenance service.

Recommendation 04

Fleet Management should work closely with the Police department to lower mileage intervals between oil changes. The reminder letter Fleet Management provides user departments should include a deadline for scheduling preventive maintenance. The letter should include a warning that gas cards will be locked out after the deadline has passed. Fleet Management should implement a procedure to complete and affix reminder stickers in a noticeable location on the vehicle that lists the mileage and date for the next scheduled preventive maintenance. Fleet Management should also establish a policy to check the MCMS system preventive maintenance warning indicator whenever a vehicle is shopped. Vehicles overdue for preventive maintenance should receive that service before being returned to the user.

Management's Response 04

Fleet Management will work with the Police Department to transition from spreadsheet format currently being used by the Police Department to MCMS format for oil change intervals. This will ensure timely information is received and entered into MCMS system for tracking and billing. For other departments, Fleet Management will add to the current letter of PM notification a statement that addresses deadlines for scheduling PM service and to advise that when vehicles/equipment do not adhere to scheduling requirements, the department's gas card will be locked out of the system after the scheduled service deadline has passed. [Target date: 12/15/01]

To help remind the people who drive City vehicles, Fleet Management will issue a reminder sticker on vehicles/equipment for next PM service after each PM service is complete. [Target date: 12/01/01]

Fleet will establish a written policy and work with the MCMS consultant to establish a process to complete PM service when it is due if the vehicle is shopped for other repairs. [Target date: 01/01/02]

Finding 05

Two repair orders contained charges for parts not associated with the particular repair.

- Two oil filters were charged to one oil change.
- Parts charges associated with a pre-delivery setup for a Sheriff's car contained a $275 tractor tire.

These were evaluated to be data entry errors.

Recommendation 05

All special order parts should be entered into inventory and then issued using Fleet's AutoInput system. Upon completion of repairs, Fleet should review the parts list to ensure erroneous parts are not charged to jobs.

Management's Response 05

Fleet Management will be generating a receipt report that which will be given to customers when they pick up their vehicle/equipment. If receipt is unavailable at time vehicle/equipment is picked up, Fleet will forward the receipt to appropriate personnel in the user department. This receipt will be reviewed and signed off by the fleet supervisors, therefore eliminating data entry errors for parts not associated with proper work orders. The receipt will list parts used, cost, labor charges per work accomplished codes, time, and a total charge for services. [Target date: 12/01/01]

Fleet Management will work with the MCMS consultant to evaluate the efficiency and feasibility of entering special order parts into inventory and issuing using the AutoInput system. The steps required to implement this recommendation may result in an inefficient process based on the volume and variety of special order parts used. [Target date: 12/15/01]

MANAGEMENT'S COMMENTS

A project team that includes representatives from Fleet Management and the Department of Management and Budget has been established to address the audit findings and implement the actions documented in management's response. The project team will also address other operational issues, which include:

- The development of performance measures, in addition to the proposed standards for repair activities, that link to the key businesses and activities of the division.
- Conducting a customer satisfaction survey.
- Benchmarking operational practices and costs against other jurisdictions.

- Completing the next phase of the vehicle utilization study.

- Evaluating proposals for outsourcing the parts warehouse.
- Evaluating the feasibility of privatizing the fleet maintenance function.

AUDITOR'S CONCLUSION

We were unable to evaluate fleet availability due to the inconsistencies identified in the data. Based on our findings, we conclude that the current system of internal controls in Fleet Management is not sufficient to ensure the department achieves its stated goal of providing safe, efficient and reliable motorized vehicular equipment in the most cost effective manner.

We would like to thank the Fleet Manager and his staff, the Department of Technology, and the City Administration for their cooperation and assistance during this audit.

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Auditor

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Municipal Auditor